

Application Serial No. 09/756,485  
Reply to Office Action of April 2, 2004

### Amendments to the Claims

This listing of claims will replace all prior versions and listings of claims in the application.

### Listing of Claims

1. (previously presented) A method for routing testing comprising:  
connecting a router to be tested to a routing test system;  
selecting a test mode for the routing test;  
obtaining a virtual network according to the selected test mode by opening a stored virtual network, opening and editing the stored virtual network, or generating a new virtual network based on inputted network constraint information;  
emulating a routing test protocol of the router under test and virtual routers of the virtual network;  
transmitting a packet to a destination address in the virtual network via the router under test; and  
monitoring links connected to the router under test.
2. (currently amended) The method according to claim 1, wherein the network constraint information comprises at least one of the a group consisting of a total number of network nodes, a total number of network links, and a total number of links coupled to the router under test.
3. (new) The method according to claim 1, wherein said virtual network comprises n virtual hosts and m virtual routers, and wherein at least one of m and n is greater than 0.
4. (new) The method according to claim 1, wherein said virtual network is generated randomly based on said inputted network constraint information.